

Appln. No. 09/910,657
Amtd. dated Jan. 11, 2006
Reply to Office Action of Oct. 11, 2005
Docket No. CH9-2000-0004 (246)

Amendments to the Claims:

Applicants respectfully request that the following listing of claims be entered in lieu of all prior versions and listings of claims in the instant application:

Listing of Claims:

1. (Currently Amended) In a speech recognition system, a method of speech recognition comprising:

(a) receiving an input that specifies a context in which the speech recognition system processes speech such that the speech recognition system is able to anticipate content within a speech signal to be received based upon the context, the input, at least in part, being automatically derived in a pre-processing step that defines content for a voice-generated output that is expected to be generated by a user of a computer system upon which the method of speech recognition executes, the input derived being based upon active applications currently executing upon the computer system;

(b) extracting content from electronic documents enabled within the active applications;

(c) generating a word list from the extracted content, wherein the derived input comprises the word list;

[[[b]]] (d) creating a context-enhanced database using information derived from said input;

[[[c]]] (e) preparing a first textual output from the speech signal by performing a speech recognition task to convert said speech signal into said first textual output, wherein said context-enhanced database is accessed to improve the speech recognition rate, wherein said speech signal is parsed into a plurality of computer processable speech segments, wherein said first textual output comprises a plurality of text segments, each corresponding to one of the computer processable speech segments, and wherein

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selective ones of the text segments are generated by matching a computer processable speech segment against an entry within the context-enhanced database, said context-enhanced database including a plurality of entries, each entry comprising a speech utterance and a corresponding textual segment for the speech utterance;

[[(d)]] (f) enabling editing of said first textual output to generate a final voice-generated output; and

[[(e)]] (g) making said final voice-generated output available.

2. (Previously Presented) The method of claim 1, wherein each of said computer-processable speech segments represent digitally encoded spoken words, and wherein each of the text segments is a word in text format.

3. (Previously Presented) The method of claim 1, wherein during said speech recognition task, said speech signals are analyzed to determine whether matches exist within the context-enhanced database for the computer-processable speech segments before another database is searched to locate text matches for the computer-processable speech segments.

4. (Previously Presented) The method of claim 2, wherein during said speech recognition task, said speech signals are analyzed to determine whether matches exist within the context-enhanced database for the computer-processable speech segments before another database is searched to locate text matches for the computer-processable speech segments.

5. (Previously Presented) The method of claim 2, wherein a second database is accessed to find a matching word for each of said words for which no matching word was

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found in said context-enhanced database, wherein the context-enhanced database is created from said input and from entries within the second database.

6. (Currently Amended) The method of claim 1, wherein at least two steps selected from the group consisting of steps (a), (b), (e), (d), and (e) (d), (e), (f), and (g) are performed concurrently.

7. (Previously Presented) The method of claim 1, wherein said-speech utterances and said textual segments of said context enhanced database represent words.

8. (Previously Presented) The method of claim 1, wherein said speech signal is interpreted as part of said speech recognition task in light of entries included in said context-enhanced database.

9. (Cancelled)

10. (Cancelled)

11. (Currently Amended) The method of claim [[10]] 1, wherein the creating step further comprises the step of:

creating the context-enhanced database from those entries of a context-independent database having words included within the word list.

12. (Original) The method of claim 1, wherein said voice-generated output is a physical output.

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13. (Original) The method of claim 12, wherein said voice-generated output is temporarily put into a memory.

14. (Previously Presented) The method of claim 1, wherein said editing is enabled by highlighting words of said first textual output having a predetermined likelihood of misinterpretation of said speech signal.

15. (Original) The method of claim 1, wherein said context-enhanced database is derived from an existing database based upon said input.

16. (Previously Presented) The method of claim 1, wherein said context-enhanced database is dynamically generated specifically for the specified context, wherein the method further comprises the step of:

detecting an event signifying the context has changed; and
responsively updating said context-enhanced database.

17. (Currently Amended) The method of claim [[9]] 1, further comprising the steps of:

automatically detecting a change in the active applications;
responsive to the detected change, automatically deriving new input; and
responsive to the new input, dynamically updating the context-dependant database based upon the new input.

18. (Original) The method of claim 1, wherein one or more of a synonym lexicon and a meaning variants database is accessed when preparing said voice-generated output.

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19. through 45. (Cancelled)

46. (Currently Amended) A machine-readable storage, having stored thereon a computer program having a plurality of code sections executable by a machine for causing the machine to perform the steps of:

(a) receiving an input that specifies a context in which the speech recognition system processes speech ~~such that the speech recognition system is able to anticipate content within a speech signal to be received based upon the context, the input, at least in part, being automatically derived in a pre-processing step that defines content for a voice-generated output that is expected to be generated by a user of a computer system upon which the method of speech recognition executes, the input derived being based upon active applications currently executing upon the computer system;~~

(b) extracting content from electronic documents enabled within the active applications;

(c) generating a word list from the extracted content, wherein the derived input comprises the word list;

[(b)] (d) creating a context-enhanced database using information derived from said input;

[(c)] (e) preparing a first textual output from the speech signal by performing a speech recognition task to convert said speech signal into said first textual output, wherein said context-enhanced database is accessed to improve the speech recognition rate, wherein said speech signal is parsed into a plurality of computer processable speech segments, wherein said first textual output comprises a plurality of text segments, each corresponding to one of the computer processable speech segments, and wherein selective ones of the text segments are generated by matching a computer processable speech segment against an entry within the context-enhanced database, said context-

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enhanced database including a plurality of entries, each entry comprising a speech utterance and a corresponding textual segment for the speech utterance;

[[(d)]] (f) enabling editing of said first textual output to generate a final voice-generated output; and

[[(e)]] (g) making said final voice-generated output available.

47. (Previously Presented) The machine-readable storage of claim 46, wherein each of said computer-processable speech segments represent digitally encoded spoken words, and wherein each of the text segments is a word in text format.

48. (Previously Presented) The machine-readable storage of claim 46, wherein during said speech recognition task, said speech signals are analyzed to determine whether matches exist within the context-enhanced database for the computer-processable speech segments before another database is searched to locate text matches for the computer-processable speech segments.

49. (Previously Presented) The method of claim 47, wherein during said speech recognition task, said speech signals are analyzed to determine whether matches exist within the context-enhanced database for the computer-processable speech segments before another database is searched to locate text matches for the computer-processable speech segments.

50. (Previously Presented) The method of claim 47, wherein a second database is accessed to find a matching word for each of said words for which no matching word was found in said context-enhanced database, wherein the context-enhanced database is created from said input and from entries within the second database .

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51. (Currently Amended) The machine-readable storage of claim 46, wherein at least two steps selected from the group consisting of steps (a), (b), (e), (d), and (e) (d), (e), (f), and (g) are performed concurrently.

52. (Previously Presented) The machine-readable storage of claim 46, wherein speech utterances and said textual segments of said context enhanced database represent words.

53. (Previously Presented) The machine-readable storage of claim 46, wherein said speech signal is interpreted as part of said speech recognition task in light of entries included in said context-enhanced database.

54. (Cancelled)

55. (Cancelled)

56. (Currently Amended) The machine-readable storage of claim [[55]] 46, wherein the creating step further comprises the step of:

creating the context-enhanced database from those entries of a context-independent database having words included within the word list.

57. (Original) The machine-readable storage of claim 46, wherein said voice-generated output is a physical output.

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58. (Original) The method of claim 57, wherein said voice-generated output is temporarily put into a memory.

59. (Currently Amended) The machine-readable storage of claim [[54]] 46, wherein said editing is enabled by highlighting words of said first textual output having a predetermined likelihood of misinterpretation of said speech signal.

60. (Original) The machine-readable storage of claim 46, wherein said context-enhanced database is derived from an existing database based upon said input.

61. (Previously Presented) The machine-readable storage of claim 46, wherein said context-enhanced database is dynamically generated specifically for the specified context, wherein the method further comprises the step of:

detecting an event signifying the context has changed; and
responsively updating said context-enhanced database.

62. (Currently Amended) The machine-readable storage of claim [[55]] 46, further comprising the steps of:

automatically detecting a change in the active applications;
responsive to the detected change, automatically deriving new input; and
responsive to the new input, dynamically updating the context-dependant database based upon the new input.

63. (Original) The machine-readable storage of claim 46, wherein one or more of a synonym lexicon and a meaning variants database is accessed when preparing said voice-generated output.

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64. (Currently Amended) In a speech recognition system, a method of speech recognition comprising the steps of:

receiving input that specifies a context in which the speech recognition system processes speech, the input, at least in part, being automatically derived in a pre-processing step that defines content for a voice-generated output that is expected to be generated by a user of a computer system upon which the method of speech recognition executes, the input derived being based upon active applications currently executing upon the computer system;

creating a context-enhanced database based upon the input;

parsing a received speech signal into a plurality of speech segments;

comparing said speech segments against entries in the context-enhanced database;

when matching entries are found in the comparing step, for each matching entry retrieving a textual segment from the context-enhanced database that is associated with the matching entry; and

generating textual output for the speech signal that includes the retrieved textual segments.

65. (Previously Presented) The method of claim 64, further comprising the steps of:

when matching entries are not found in the comparing step, generating a textual segment for the speech segment using a context-independent database, wherein the generated textual output includes the generated textual segments.

66. (Previously Presented) The method of claim 65, wherein entries within the context-enhanced database are a subset of entries contained within the context-

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independent database that are derived from the context-independent database and the input.

67. (Cancelled)

68. (Cancelled)

69. (Currently Amended) The method of claim [[68]] 64, wherein the creating step further comprises the step of:

creating the context-enhanced database from those entries of a context-independent database having words included within the word list.

70. (Currently Amended) The method of claim [[67]] 64, further comprising the steps of:

automatically detecting a change in the active applications;
responsive to the detected change, automatically deriving new input; and
responsive to the new input, modifying the context-dependant database based upon the new input.

71. (Previously Presented) The method of claim 70, further comprising the step of: repeating the detecting step, the deriving step, and the modifying step of claim 70 to ensure the context-dependant database includes information for a current state of the active applications.